AASG Association of American State Geologists

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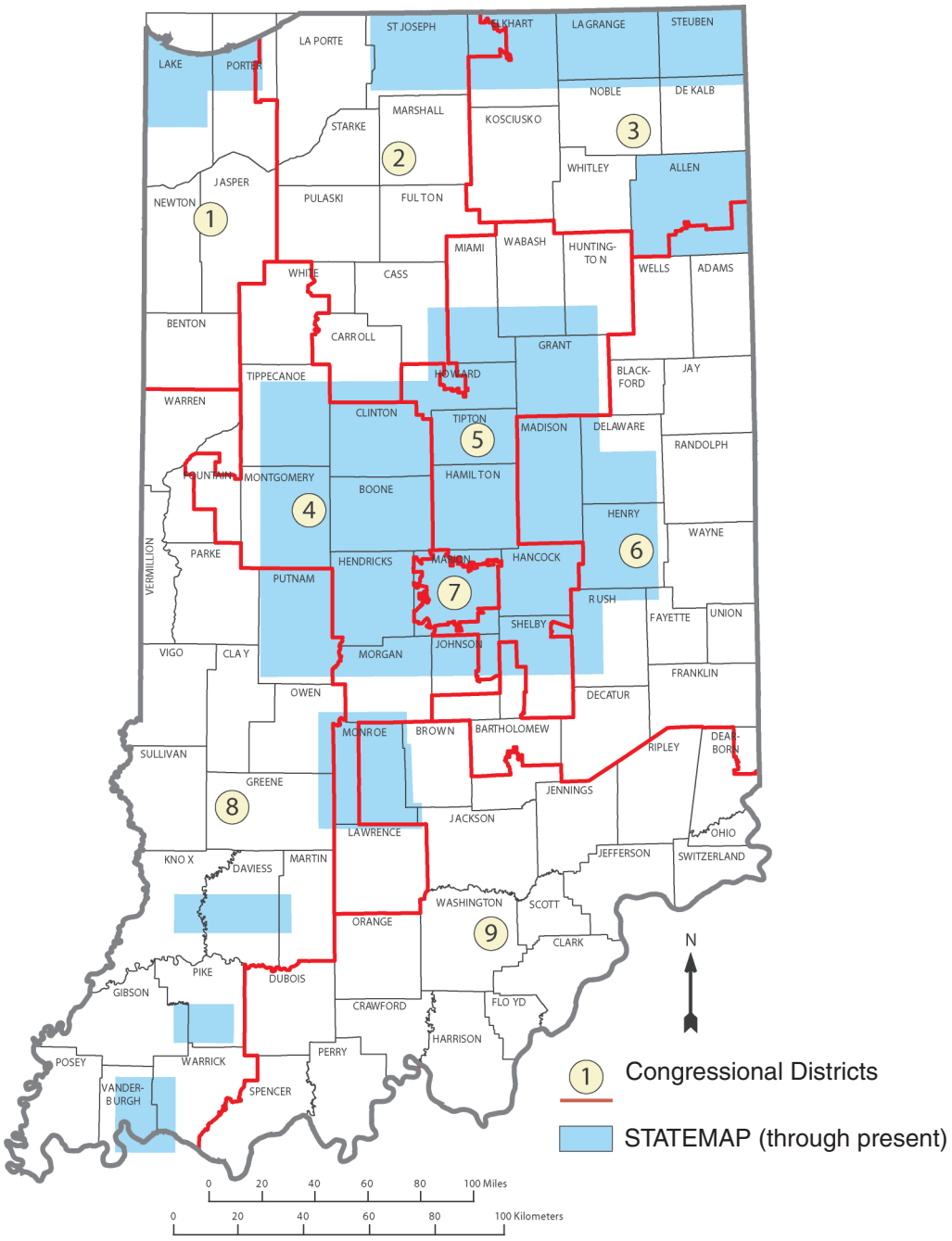
United States Geological Survey

USGS science for a changing world

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

INDIANA



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SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN INDIANA

Federal Fiscal Year	Projects/ Scale	Federal Dollars	State Dollars	Total Project Dollars
1993	Surficial Mapping: Gary 7.5-min quadrangle: scale 1:24,000	24,426	64,160	88,586
1994	Surficial Mapping: Calumet City, Highland, Lake Calumet and Whiting 7.5-min quadrangles: scale 1:24,000	57,938	79,418	137,356
	Surficial Mapping: Chicago 30' x 60' quadrangle: scale 1:100,000			
	Surficial Mapping: Evansville North and Evansville South 7.5-min quadrangles: scale 1:24,000	30,000	50,079	80,079
1995	Surficial Mapping: Dyer, Crown Point and Saint John 7.5-min quadrangles: scale 1:24,000	35,000	53,203	88,203
	Surficial Mapping: Newburgh and Daylight 7.5-min quadrangles: scale 1:24,000	15,000	19,429	34,429
1996	Surficial Mapping: Shipshewana, Topeka, Oliver Lake, Lagrange and Sturgis 7.5-min quadrangles: scale 1:24,000	51,446	51,673	103,119
	Surficial Mapping: Continuation of mapping Daylight 7.5-min quadrangle: scale 1:24,000	16,771	18,787	35,558
	Surficial & Bedrock Mapping: Loogootee and Montgomery 7.5-min quadrangles: scale 1:24,000	52,135	85,433	137,568
	Digital Conversion: Maps and report of Allen County	12,290	13,191	25,481
1997	Surficial Mapping: Mongo and Wolcottville 7.5-min quadrangles: scale 1:24,000	44,827	45,101	89,928
	Surficial & Bedrock Mapping: Washington and Wheatland 7.5-min quadrangles: scale 1:24,000	62,586	78,891	141,477
1998	Surficial Mapping: Middlebury, Millersburg, Stroh, Orland and Bronson South 7.5-min quadrangles: scale 1:24,000	56,045	57,008	113,053
	Surficial & Bedrock Mapping: Oakland City and Augusta 7.5-min quadrangles: scale 1:24,000	16,261	54,771	71,032
1999	Surficial Mapping: Arcadia, Ashley, Angola East, Angola West, Bristol, Clear Lake, Edon, Elkhart,	62,950	63,052	126,002
	Foraker, Goshen, Hamilton, Kempton, Sheridan and Tipton 7.5-min quadrangles: scale 1:24,000	30,160	30,449	60,609
	Bedrock Mapping: East 1/4 Lafayette and West 1/4 Muncie 30' x 60' quadrangles: scale 1:100,000	16,890	17,163	34,053
2000	Surficial Mapping: Carmel, Fishers, Lakeville, Lydick, Noblesville, North Liberty, Osceola, South	63,775	64,502	128,277
	Bend East, South Bend West, Wakarusa, Westfield and Wyatt 7.5-min quadrangles: scale 1:24,000	34,990	35,732	70,722
	Bedrock Mapping: Indianapolis 30' x 60' quadrangle: scale 1:100,000	40,807	41,023	81,830
2001	Surficial Mapping: East 1/2 Lafayette and West 1/2 of Muncie 30' x 60' quadrangles: scale 1:100,000	197,152	197,366	394,518
	Bedrock Mapping: West 1/2 Muncie, West 1/2 New Castle and Lafayette 30' x 60' quadrangles: scale 1:100,000			
	National Geologic Map Database: Indiana geoscience map bibliography	6,000	6,000	12,000
2002	Surficial Mapping: Continuation of 2001 mapping	227,334	227,689	455,023
	Bedrock Mapping: Continuation of 2001 mapping			
2003	Surficial Mapping: Cleveland, Ingalls, Greenfield and Pendleton 7.5-min quadrangles: scale 1:80,000	147,329	147,887	295,216
	Bedrock Mapping: Southwest part of the Wabash 30' x 60' quadrangle: scale 1:100,000			
2004	Surficial Mapping: Dunreith, Knightstown, Lewisville, New Castle East, New Castle West and Shirley 7.5-min quadrangles: scale 1:50,000	125,555	125,807	251,362
	Bedrock Mapping: Gosport, Modesto and Hindustan 7.5-min quadrangles: scale 1:24,000	78,017	78,019	156,036
2005	Surficial Mapping: Mount Pleasant and Sulphur Springs 7.5-min quadrangles: scale 1:50,000	70,994	71,160	142,154
	Bedrock Mapping: Whitehall, Bloomington and Unionville 7.5-min quadrangles: scale 1:24,000	68,130	69,169	137,299
2006	Surficial Mapping: Muncie East and Muncie West 7.5-min quadrangles: scale 1:40,000	74,529	75,028	149,557
	Bedrock Mapping: Allens Creek, Clear Creek, and Stanford 7.5-min quadrangles: scale 1:24,000	81,207	81,416	162,623
	TOTALS	$1,800,544	$2,002,606	$3,803,150

Geologic Mapping: A STATE NEED

The Indiana Geological Survey (IGS) STATEMAP program addresses a variety of societal, scientific and operational needs within the context of the IGS long-term mapping plan. Mapping priorities are determined on the basis of several criteria, including the practical need to concentrate mapping efforts in corridors and centers of growth, the distribution of completed and in-progress work, the availability of data, opportunities for inter-agency cooperation and opportunities for education and outreach. Through their mapping efforts, IGS staff hope to promote broad-based geological understanding amongst our citizens, our most important customers, and bridge the gap between the highly technical nature of science and the need for general earth information.

How are geologic maps used?

The primary use of geologic maps and associated products is education. These products bring to the *common* table a combination of the most up-to-date data, interpretation and illustration. Their intent is to be a cornerstone of the public forum on land-use issues.

Geologic-map products are utilized for making informed land-use decisions involving:

- Geologic framework of aquifers and their recharge and discharge areas
- Ground-water resources: location, amount, protection
- Mineral and energy resources and the environmental impact of their extraction
- Local and regional sensitivity to ground-water contamination: best-management practices, local septic-system issues, solid- and hazardous-wastes disposal
- Earthquake hazards and mitigation

Advances in technology now allow geologists to access, view, and analyze data in ways never before possible. Geographic Information Systems and computer databases permit STATEMAP-sponsored geologists to make customized, user-friendly products for end users. Moreover, modern geologic maps are digitally stored for rapid ease of manipulation at minimal cost. These methods of data handling and manipulation in themselves create new mapping challenges and opportunities.

Overall, the intent of modern geologic maps is to permit the citizens of the state to raise the quality of their lives through informed decisions directed toward the wise use of the land.

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